WHAT IS CLAIMED IS:

1. A method for processing a supported article that requires support from a fixture during the processing, comprising the steps of:

furnishing a sacrificial ceramic fixture precursor having a shaped portion thereof shaped to receive a supported article in contact therewith; thereafter

contacting the sacrificial ceramic fixture precursor to a molten reactive metal for a period of time sufficient to permit the sacrificial ceramic fixture precursor and the reactive metal to react together, producing a reacted ceramic fixture comprising an open-cell solid foam of ceramic cell walls having an interconnected intracellular volume therebetween; thereafter

positioning the reacted ceramic fixture in relation to the supported article to produce a process assembly; and thereafter

processing the process assembly as required for the supported article.

2. The method of claim 1, including an additional step, after the step of contacting and before the step of supporting, of

removing metal from at least a portion of the intracellular volume of the reacted ceramic fixture to produce porosity therein.

3. The method of claim 2, including an additional step, after the step of removing and before the step of positioning, of

filling at least some of the porosity with a filler material.

4. The method of claim 3, wherein the filler material is a filler metal.

5. The method of claim 3, wherein the filler material is a ceramic surface sealant.

6. The method of claim 1, including an additional step, after the step of contacting and before the step of supporting, of

replacing metal in at least a portion of the intracellular volume of the reacted ceramic fixture with a replacement metal.

7. The method of claim 1, wherein the sacrificial ceramic fixture precursor comprises silica.

8. The method of claim 1, wherein the ceramic cell walls comprise from about 60 to about 80 percent by volume of the open-cell solid foam.

9. The method of claim 1, wherein the molten reactive metal comprises an aluminum-base metal.

10. The method of claim 1, wherein the supported article comprises a nickel-base superalloy.

11. The method of claim 1, wherein the step of furnishing a sacrificial ceramic fixture precursor includes the step of

slip casting the sacrificial ceramic fixture precursor from a sacrificial ceramic slip material comprising particles of the sacrificial ceramic. 264

12. The method of claim 1, wherein the step of furnishing includes the steps of

preparing the sacrificial ceramic fixture precursor of a sacrificial ceramic having a softening temperature,

heating the sacrificial ceramic fixture precursor made of the sacrificial ceramic to a temperature above the softening temperature, and

correcting the dimensions of the sacrificial ceramic fixture precursor while it is at a temperature above the softening temperature.

13. The method of claim 1, wherein the step of furnishing includes the step

of

correcting the dimensions of the sacrificial ceramic fixture precursor.

14. The method of claim 1, wherein the step of processing includes the step of

heating the process assembly to a temperature greater than room temperature.

15. The method of claim 1, wherein the step of positioning includes the step of

contacting the reacted ceramic fixture to the supported article.

16. A process assembly comprising

a fixture having a body with a shaped portion thereof shaped to receive a supported article in contact therewith, the body comprising an open-cell solid foam of ceramic cell walls having an interconnected intracellular volume therebetween; and

a supported article in contact with the shaped portion of the fixture body.

17. The process assembly of claim 16, wherein the intracellular volume comprises, at least in part, porosity.

18. The process assembly of claim 16, wherein the ceramic cell walls comprise alumina.

19. The process assembly of claim 16, wherein the supported article comprises a nickel-base superalloy.

20. The process assembly of claim 16, wherein the ceramic cell walls comprise from about 60 to about 80 percent by volume of the open-cell solid foam.